C4 Cont'd

wherein the cosmetic composition is pressurized in an aerosol container prior to application.

REMARKS

I. Status of the Claims

Claims 18-26, 28-36, and 40-48 are now pending in the application. Claims 18, 32, 40, and 43 have been amended and claims 27, 37, and 38 cancelled.

More particularly, Applicants have amended independent claims 18, 40, and 43, to include the subject matter of cancelled claim 27, i.e., to recite that the α,ω-disilanol is present in an amount ranging from 0.05 to 10% by weight. Independent claims 18 and 40 have been amended to recite "at least one propellant" as previously recited in cancelled claim 37. The independent claims are also amended to recite that the amount of the at least one propellant ranges from 15 to 35% by weight, as disclosed, e.g., on page 16, lines 1-2, of the present specification. The independent claims are further amended to recite that the composition is in the form of an aerosol, as disclosed, e.g., on page 17, line 8, and page 21, line 13, of the present specification. Accordingly, support for the amendments to independent claims 18, 40, and 43 is found in the originally filed claims and specification. Thus, no new matter has been added by the amendments.

Applicants respectfully request entry of these amendments, and respectfully submit that the amendments place the application in condition for allowance, as discussed in more detail below. Applicants also submit that the present amendment

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would place the application in better form for appeal, should the Office continue to dispute the patentability of the pending claims.

II. Summary of Interview and Additional Amendments

Applicants would initially like to thank Examiner Wells and her supervisor, Mr. Padmanabahn, for conducting an interview with their representatives, Thalia Warnement and Steve Helmer, on October 22, 2002. During the interview, Applicants' representatives proposed amending the independent claims to recite that the at least one non-aminated silicone α,ω-disilanol is present in an amount ranging from 0.05 to 10 % by weight. Examiner Wells indicated that the proposed amendment would overcome the 35 U.S.C. § 102 rejection over U.S. Patent No. 5,721,026 to *Feder et al.* *See* Interview Summary.

Examiner Wells, however, argued that the proposed amendment would not overcome the 35 U.S.C. § 103 rejection over the combination of *Feder*, U.S. Patent No. 6,024,946 to *Dubief et al.,* U.S. Patent No. 6,153,179 to *Blankenburg et al.*, and U.S. Patent No. 6,106,577 to *Audousset et al.* In this regard, Examiner Wells asserted that *Dubief* discloses compositions containing siloxanes in amounts falling within the proposed amended range.

In view of the above, the present amendment includes not only the proposed amendment discussed during the interview, but also additional amendments. The additional amendments include the recitation in each independent claim of at least one propellant in an amount ranging from 15 to 35% by weight, with respect to the total weight of the cosmetic composition, and the recitation that the cosmetic composition is in the form of an aerosol.

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III. Response to § 102 Rejection

Claims 18-21, 24-30, 40, and 42 are rejected under 35 U.S.C. § 102(e) as anticipated by *Feder*, for the reasons of record and those set forth at page 2 of the Final Office Action. Applicants respectfully traverse this rejection for the reasons of record and those below.

The present claims, as amended, recite a cosmetic composition comprising, in relevant part, an emulsion comprising at least one non-aminated silicone α,ω-disilanol, wherein the at least one non-aminated silicone α,ω-disilanol is present in an amount ranging from 0.05 to 10% by weight, with respect to the total weight of the cosmetic composition; at least one propellant in an amount ranging from 15 to 35% by weight, with respect to the total weight of the cosmetic composition; and wherein the cosmetic composition is in the form of an aerosol. *See, e.g.*, amended claim 18.

In the present case, as noted above, Examiner Wells agreed during the October 22, 2002, interview that *Feder* fails to disclose at least one non-aminated silicone α,ω-disilanol in an amount ranging from 0.05 to 10% by weight, with respect to the total weight of the cosmetic composition. Therefore, Examiner Wells agreed that *Feder* fails to anticipate the present invention as recited in the amended claims.

For the sake of completeness, Applicants also note that *Feder* fails to disclose at least one propellant. Moreover, *Feder* fails to disclose at least one propellant in an amount ranging from 15 to 35% by weight, with respect to the total weight of the cosmetic composition. In addition, *Feder* does not disclose its composition in the form of an aerosol. Finally, Applicants note that cancelled claims 37 and 38, the subject

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matter of which is now incorporated into the independent claims, were never rejected under 35 U.S.C. § 102.

In view of the above, Applicants respectfully request withdrawal of this ground of rejection.

IV. Response to § 103 Rejection

Claims 18, 22, 23, 31-38, 40, 41, and 43-48 are rejected under 35 U.S.C. § 103(a) as being unpatentable over *Feder* in view of *Dubief* and in view of *Blankenburg* or *Audousset*, for the reasons of record and those set forth at pages 3-6 of the Final Office Action. Applicants respectfully traverse the rejection for the reasons of record and those that follow.

As an initial matter, Applicants note that cancelled claim 27, the subject matter of which is now incorporated into the independent claims, was not rejected under 35 U.S.C. § 103. Accordingly, addition of this subject matter to claims 18, 40, and 43 should remove these independent claims from the rejection without any need for argument. Nevertheless, for the sake of completeness, Applicants argue the merits of the rejection below.

To establish a *prima facie* case of obviousness, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Also, the prior art reference (or references when combined) must teach or suggest all the claim limitations. See M.P.E.P. § 2143.

The Federal Circuit has emphasized the Examiner's high burden for establishing a *prima facie* case of obviousness and the requirement for specificity in the evidence

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necessary to support a *prima facie* case. For example, in *In re Lee*, the Federal Circuit held that "[t]he factual inquiry whether to combine references must be thorough and searching. It must be based on objective evidence of record. This precedent has been reinforced in myriad decisions, and cannot be dispensed with." 277 F.3d 1338, 1433 (Fed. Cir. 2002). *See also In re Dembiczak*, 50 USPQ2d 1614 (Fed. Cir. 1999) (requiring a "clear and particular" suggestion to combine prior art references).

A. No Motivation to Modify Feder to Include at Least One Non-aminated Silicone α,ω-disilanol in an Amount of 0.05 to 10% by Weight

As noted above, Examiner Wells agreed that *Feder* fails to disclose at least one non-aminated silicone α,ω-disilanol in an amount ranging from 0.05 to 10% by weight, with respect to the total weight of the cosmetic composition. Applicants respectfully submit that not only is there no teaching of this amount of α,ω-disilanol, but there is also no suggestion or motivation to modify *Feder* to include at least one non-aminated silicone α,ω-disilanol in an amount ranging from 0.05 to 10% by weight, with respect to the total weight of the cosmetic composition.

As an initial matter, there would have been no motivation to modify the composition of *Feder* to include the recited amount of the at least one non-aminated silicone α,ω-disilanol based on the teachings of *Dubief*, in part because *Feder* and *Dubief* disclose different compositions having different purposes. In particular, there would have been no motivation to modify the permanent waving composition, face mask cream, or hair-removal composition teachings of *Feder* (its only teachings of cosmetic compositions), with the mascara, shampoo, hair conditioner, or treatment lotion teachings of *Dubief*.

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Further, *Feder* and *Dubief* disclose different forms of siloxanes such that there would have been no motivation to modify the siloxane teachings of *Feder* with the siloxane teachings of *Dubief*. Specifically, *Feder* discloses an α,ω-(dihydroxy)polydiorganosiloxane emulsion, whereas *Dubief* does not disclose any siloxane in emulsion. Although *Dubief* discloses an oil-in-water emulsion of acrylamide/sodium 2-methyl propanesulfonate acrylamide copolymer, and also discloses siloxanes such as octamethylcyclotetrasiloxane dimethiconol and dodecamethylcyclopentasiloxane, *Dubief* fails to disclose or suggest that its siloxanes are in an emulsion. The failure of *Dubief* to teach a siloxane emulsion is notable in contrast with its specific reference to emulsions of other polymers. *See, e.g.,* Examples 1, 2, 7, and 8 of *Dubief*. Because of this basic difference between *Feder* and *Dubief*, Applicants respectfully submit that there would have been no motivation to combine the teachings of these documents for this reason alone.

In response to the argument of record that *Dubief* does not disclose an α,ω-(dihydroxy)polydiorganosiloxane emulsion, the Examiner asserts that *Dubief* discloses α,ω-(dihydroxy)polyorganosiloxane for use in emulsions, and points to columns 2 and 3, "wherein *Dubief* teaches silicones for use in his invention which may be insoluble or soluble in aqueous media, and may be in the form of oils, waxes, gums or resins, and teaches that polydiorganosiloxanes are preferred silicone gums." Final Office Action at page 4. Applicants agree that *Dubief* discloses siloxanes, and separately discloses other polymers in emulsion. But Examiner Wells agreed during the interview that *Dubief* fails to disclose a siloxane in emulsion.

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Blankenburg and *Audousset* fail to disclose or suggest at least one non-aminated silicone α,ω-disilanol in an amount ranging from 0.05 to 10% by weight. *Blankenburg* and *Audousset* therefore fail to cure the above-noted deficiency of *Feder*.

Therefore, there would have been no motivation to modify the siloxane emulsion teachings of *Feder* with those of *Dubief*, *Blankenburg*, and *Audousset* to include at least one non-aminated silicone α,ω-disilanol in an amount ranging from 0.05 to 10% by weight, with respect to the total weight of the cosmetic composition. The rejection should fail for this reason alone.

B. No Motivation to Modify the Teachings of Feder to Include at Least One Propellant in an Amount Ranging from 15 to 35% by Weight

Not only would there have been insufficient motivation to modify the teachings of *Feder* with respect to the amount of siloxane, but there also would have been insufficient motivation to modify *Feder* with respect to the propellant which is now required by the claims. As mentioned above, *Feder* fails to disclose at least one propellant in an amount ranging from 15 to 35% by weight, with respect to the total weight of the cosmetic composition. Applicants respectfully submit that in addition to this failure to teach at least one propellant, there would have been no motivation to modify the teachings of *Feder* to add one, let alone one present in the claimed range.

For instance, because *Feder* and *Dubief* disclose different kinds of compositions, there would have been no motivation to add a propellant to the cosmetic composition of *Feder* based on the teachings of *Dubief*. More specifically, although *Feder* discloses a handful of cosmetic uses for its aqueous silicone dispersions, as discussed above, most of the disclosure of *Feder* is directed to non-cosmetic uses such as paint, silicone elastomer seals, water-repellent coatings, coating pharmaceutical or plant-protection

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active substances, coating cork stoppers, and coating kitchenware.[1] *See, e.g.*, col. 10, lines 29-59. The cosmetic compositions disclosed in *Feder* include permanent waving compositions, face mask creams, and hair-removal compositions. *See* col. 11, lines 9-19. *Feder* fails to disclose or suggest that any of these compositions, cosmetic or not, should include a propellant (in any amount) or, for that matter, are in the form of an aerosol such as hairspray.

In contrast with the compositions of *Feder*, the compositions of *Dubief* include shampoo and rinse or non-rinse treatment lotions for application before or after shampooing, before or after perming, before or after dyeing or bleaching or between two perming or straightening steps. Col. 7, line 39; and col. 7, lines 57-61. *Dubief* also teaches that its compositions repair hair fibers and produce the required softness and combthrough properties. Col. 8, lines 1-5. Examples 1-5 and 7 of *Dubief* involve non-rinse and rinsed conditioners. Therefore, the hair teachings of *Dubief* relate to shampoo or hair conditioners, and do not relate to the permanent waving or hair-removal compositions of *Feder*. In view of the above, *Dubief* fails to disclose or suggest any motivation to add a propellant to the particular types of compositions disclosed by *Feder*.

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[1] In response to the argument that *Feder* is primarily directed to compositions other than cosmetic compositions, the Office argues that *Feder* discloses "cosmetic compositions" and that "a reference is not limited to the preferred embodiments or working examples, but extends to the entire disclosure for what it fairly teaches . . . ." Final Office Action at page 3. In response, Applicants note that a prior art reference must be considered in its entirety, i.e., as a whole, including portions that would lead away from the claimed invention. *W.L. Gore & Associates, Inc. v. Garlock, Inc.*, 721 F.2d 1540, 220 USPQ 303 (Fed. Cir. 1983), *cert. denied*, 469 U.S. 851 (1984). Therefore, since the problems, objectives, and compositions of *Feder* are primarily directed to compositions other than cosmetic compositions, there would have been

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Similarly, *Blankenburg* fails to provide motivation to add at least one propellant to the composition of *Feder*. In this regard, the composition of *Blankenburg* is also distinct from the composition of *Feder*. The composition of *Blankenburg* is described as a hair setting lotion. *See* abstract. *Blankenburg* discloses that if its hair setting lotion is used as a hairspray, propellant is added as a rule. Col. 3, lines 62-63. In contrast, the cited documents fail to disclose or suggest that the permanent waving or hair-removal compositions of *Feder* are hairsprays or aerosols of any type. In view of this basic difference between *Feder* and *Blankenburg*, there would have been no motivation to add the propellant of *Blankenburg* to the composition of *Feder*.

Audousset fails to disclose or suggest propellants. *Audousset* therefore fails to cure the above-noted deficiency of *Feder*.

Thus, not only would there have been no motivation to add at least one propellant to the composition of *Feder*, but also there would have been no motivation to modify the teachings of *Feder* to include at least one propellant in an amount ranging from 15 to 35% by weight, with respect to the total weight of the cosmetic composition. *Dubief* fails to disclose the amount of its propellant. The only disclosure of *Blankenburg* of the amount of its propellant appears in Examples 11 and 12. Example 11 includes 39.42 wt% of a 50:50 mixture of propane and butane. Example 12 includes 60 wt% of a 30:50:20 mixture of propane, butane, and n-pentane. Accordingly, there would have been no motivation to make the modifications suggested by the Examiner, and the rejection should fail for this reason alone.

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insufficient motivation to combine the teachings of the cited documents in the envisioned manner.

C. Even if There Were a Prima Facie Case of Obvious, It Would Be Overcome by the Showing of Unexpected Results

Even if a *prima facie* case of obviousness were established in this case, and Applicants do not admit that it has been, the claimed compositions and processes of the present invention yield unexpected results sufficient to rebut a *prima facie* case of obviousness. The Federal Circuit has held that a showing of substantially improved results for an invention and a statement that results were unexpected suffice to establish unexpected results absent evidence to the contrary. *In re Soni*, 34 USPQ2d 1684, 1687-1688 (Fed. Cir. 1995).

Here, the present specification states that the results of the present invention are surprising. *See, e.g.*, page 3, lines 24-26. The present specification also provides data indicating these unexpected results. *See* Examples 1-3. In particular, Examples 1-3 show substantially improved results for disentangling, softness, and feel.

In response to the argument of record that the results of the present invention are unexpected, the Examiner responds:

> Regarding the charts on pages 20 and 22, the results are not clear and convincing. First, it is not clear what the units of measurement are regarding the aspects of "disentangling", "softness", and "feel". Hence, it is not clear whether or not these results are actually unexpected. Second, the Examiner respectfully points out that the charts on pages 20 and 22 are not commensurate in scope with instant claim 18, as the charts encompass one species of an aminated [sic, non-aminated] silicone alpha, omega-disilanol, one species of a medium, and two species of an insoluble polymer particle. Furthermore, the Examiner respectfully points out, as stated above, that it is applicant's burden to demonstrate unexpected results over the ***closest prior art***.

Final Office Action at page 6 (emphasis in original).

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Applicants continue to disagree. Examiner Wells agreed during the interview that it is standard practice, known to the person of ordinary skill in the art, to evaluate properties of hair such as disentangling, softness, and feel, using a panel of testers to rate the properties. However, she maintained her position that *Feder* is the closest prior art.

In addition, despite the assertions of the Examiner to the contrary, Applicants respectfully submit that the charts on pages 18, 20, and 22 are sufficiently commensurate in scope with the independent claims to the extent that this data suggests a trend of unexpected results. Specifically, inventive compositions containing a non-aminated silicone α,ω-disilanol emulsion[2] according to the invention are compared with noninventive compositions containing silicones outside the scope of the invention. In each comparison at least two, and in most cases three, of the three measured properties of the compositions of the present invention were improved unexpectedly.

In response to the Examiner's contention that the comparative compositions on pages 18, 20, and 22 are not the closest prior art, Applicants submit that these compositions are closer to the present invention than the closest Example of *Feder*. The Examples of *Feder* appear to involve paint. In contrast, the independent claims recite a cosmetic composition including a cosmetically acceptable medium. Moreover, the Examples of *Feder* fail to involve aerosols, fail to include at least one propellant, and fail to include at least one silicone in an amount ranging from 0.05 to 10% by weight,

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[2] Page 6 of the Final Office Action indicates that only one species of non-aminated α,ω-disilanol is exemplified, but actually there are two: SILTECH E-2170 in example compositions 1A, 2A, and 3A, andTP511 A in example composition 2B.

with respect to the total weight of the cosmetic composition.[3] Thus, the comparative compositions are closer than the closest Example of *Feder*.

Applicants therefore respectfully submit that the present application includes data showing substantially improved and unexpected results compared to the closest prior art and which is commensurate in scope with the claims. If the Examiner does not agree, Applicants request further clarification.

In view of the above, Applicants respectfully request withdrawal of this ground of rejection.

V. Conclusion

Applicants respectfully request reconsideration of this application and the timely allowance of all pending claims.

Please grant any extensions of time required to enter this response and charge any additional required fees to our deposit account 06-0916.

Respectfully submitted,

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Dated: November 15, 2002

By: Steven J. Helmer
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[3] Examples 3B and 3C of the present application are comparative examples involving aerosols and propellants.

APPENDIX

18. (Twice Amended) A cosmetic composition comprising:

(a) an aqueous dispersion comprising at least one insoluble polymer particle;

(b) an emulsion comprising at least one non-aminated silicone α,ω-disilanol, wherein the at least one non-aminated silicone α,ω-disilanol is present in an amount ranging from 0.05 to 10% by weight, with respect to the total weight of the cosmetic composition; [and]

(c) at least one propellant in an amount ranging from 15 to 35% by weight, with respect to the total weight of the cosmetic composition; and

(d) a cosmetically acceptable medium,

wherein the cosmetic composition is in the form of an aerosol.

32. (Amended) A composition according to claim 18, [which further comprises at least one propellant, and] wherein the composition is pressurized in an aerosol container.

40. (Twice Amended) A process for treating keratinous substances comprising applying to the keratinous substances a cosmetic composition in the form of an aerosol comprising:

(a) an aqueous dispersion comprising at least one insoluble polymer particle;

(b) an emulsion comprising at least one non-aminated silicone α,ω-disilanol, wherein the at least one non-aminated silicone α,ω-disilanol is present in an amount

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ranging from 0.05 to 10% by weight, with respect to the total weight of the cosmetic composition; [and]

(c) at least one propellant in an amount ranging from 15 to 35% by weight, with respect to the total weight of the cosmetic composition; and

(d) a cosmetically acceptable medium.

43. (Twice Amended) A process for treating keratinous substances comprising applying to the keratinous substances a cosmetic composition in the form of an aerosol comprising:

(a) an aqueous dispersion comprising at least one insoluble polymer particle,

(b) an emulsion comprising at least one non-aminated silicone α,ω-disilanol, wherein the at least one non-aminated silicone α,ω-disilanol is present in an amount ranging from 0.05 to 10% by weight, with respect to the total weight of the cosmetic composition,

(c) at least one propellant in an amount ranging from 15 to 35% by weight, with respect to the total weight of the cosmetic composition, and

(d) a cosmetically acceptable medium,

wherein the cosmetic composition is pressurized in an aerosol container prior to application.

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